

**CULTURAL RESOURCE SURVEY OF THE TWO CREEKS RESIDENTIAL  
DEVELOPMENT ALONG LEON CREEK, BEXAR COUNTY, TEXAS**

Prepared for

**TWO CREEKS/BITTERBLUE PHASE I, LTD.**

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SWCA Project Number 8837-004-AUS  
SWCA Cultural Resources Report No. 04-398

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## ABSTRACT

On behalf of Two Creeks/Bitterblue Phase I, Ltd., SWCA conducted archaeological investigations of the proposed 309.6-acre Two Creeks residential development near Leon Springs in north-central Bexar County, Texas. The work was conducted in compliance with requirements of the San Antonio Historic Preservation Office. The development would involve the construction of roads, houses, and utilities, which would entail a variety of surficial and subsurface impacts. Currently, the project area comprises undeveloped ranchland, much of it open pasture, on the northern terraces of Leon Creek, a tributary of the Medina River. The investigations included an archaeological background records review of the entire 309.6-acre property, and an intensive pedestrian survey with backhoe trenching of only those portions of the property comprising the northern terraces of Leon Creek within the project area.

The background records review revealed no previous surveys or recorded sites within or immediately adjacent to the project area. Five previously recorded sites and two properties listed on the National Register of Historic Places (NRHP) are located within 1 mile of the project area, but none of these sites have components in the immediate vicinity of the project area. The background review also indicated the geology and soils of the majority of the project area consist of a very shallow upland setting with very little potential for site integrity. Thus, the San Antonio Historic Preservation Office determined that an investigation of only the deeper soils along Leon Creek would be necessary. During the SWCA field investigation, archaeologists traversed the 1,300-m long frontage of Leon Creek and excavated 13 backhoe trenches. The survey revealed silty loam to clay loam over bedrock, with bedrock depth ranging from 10 cmbs to 175 cmbs. No cultural resources were located during the survey. Based on these findings, the proposed project will have no effect on significant cultural resources. Accordingly, archaeological clearance is recommended. No artifacts were collected during the investigations, and nothing was curated.

## **MANAGEMENT SUMMARY**

**PROJECT TITLE:** Cultural Resource Survey of the Two Creeks Residential Development along Leon Creek, Bexar County, Texas.

**SWCA PROJECT NUMBER:** 8837-004-AUS.

**PROJECT DESCRIPTION:** The proposed design involves residential development of a 309.6-acre area near Leon Springs in north-central Bexar County, Texas. The project would involve various surface and subsurface impacts related to construction of houses, utilities, and roads. The investigations included an archaeological background records review and an intensive pedestrian survey of the property.

**LOCATION:** The project area is located on the northern terraces of Leon Creek approximately 1.5 km west of Interstate Highway (IH) 10. Boerne Stage Road runs along the south side of the acreage, which parallels Leon Creek, and IH 10 is located along the northeastern side of the project area. The remainder of the project area shares boundaries with residential development or undeveloped property. The property is depicted on the Van Raub USGS 7.5-minute Quadrangle.

**NUMBER OF ACRES SURVEYED:** Approximately 20 acres along Leon Creek.

**PRINCIPAL INVESTIGATOR:** Brett Houk.

**DATES OF WORK:** October 26, 2004.

**PURPOSE OF WORK:** The project sponsor is fulfilling requirements of the San Antonio Historic Preservation Office.

**NUMBER OF SITES:** None.

**CURATION:** No artifacts were collected, and nothing was curated.

**COMMENTS:** No archaeological sites were identified in the project area. Based on the findings of the survey, the proposed project will have no adverse effect on significant cultural resources. Therefore, archaeological clearance is recommended.

## INTRODUCTION

On behalf of Two Creeks/Bitterblue Phase I, Ltd., SWCA Environmental Consultants (SWCA) conducted a cultural resource investigation of the proposed 309.6-acre Two Creeks residential development near Leon Springs in north-central Bexar County, Texas (Figure 1). The work, which included an archaeological background records review of the entire 309.6 acres and an intensive pedestrian survey with backhoe trenching of portions of the property along Leon Creek, was conducted in compliance with requirements of the San Antonio Historic Preservation Office. The purpose of the work was to determine if the undertaking would adversely affect significant cultural resources.

## PROJECT AREA DESCRIPTION

The proposed residential development would involve the construction of roads, houses, and utilities, entailing a variety of surficial and subsurface impacts. The project area includes 13 units of development of single-family homes with numerous feeder and collector streets. In total, 816 lots, averaging 3 lots per acre, are proposed. A 2.8-acre park is also proposed within the development. No structures are proposed within the 100-year floodplain of either Leon Creek to the south or Nichols Creek to the north. City of San Antonio water and sewer lines are proposed for the development, as well as local gas, electric, telephone, and cable lines. The original homestead of the land proposed for development will remain on a 19.45-acre lot. Two houses, two barns, and a concrete cistern, all of modern construction (within last 50 years), are located on that property.

Currently, the project area covers undeveloped ranchland on the northern terraces of Leon Creek, in between Boerne Stage Road and Interstate Highway (IH) 10. The proposed de-

velopment area consists of two "wedge-shaped" sections surrounded by undeveloped and residential property, and contains of a central hill in the center leading to two terraces on either side, and finally to Leon Creek on the southwest side and Nichols Creek on the northeast side (Figure 2). To varying degrees, the entire area has been altered by agriculture and development. An artificial stock pond substantially modified approximately 1.3 acres in the central portion of the southern tract, leaving no potential for intact deposits. In the shallow soils in the eastern side of the lower "wedge," about 26 acres, plowing has likewise caused substantial impacts. Otherwise, the impacts have been predominantly surficial.

## ENVIRONMENTAL SETTING

The project area lies on the southern edge of the Edwards Plateau, west of the Balcones Escarpment. Surface geology is Cretaceous Glen Rose formation limestone and marl (Barnes 1982). The bedrock is typically fine-grained, chalky to hard limestone with interbedded marine megafossils (Barnes 1982).

Soils are primarily Crawford and Bexar stony soils with some Lewisville silty clays and Crawford clays covering small portions of the survey area (Taylor et al. 1962). The Crawford and Bexar stony soils are characterized as occupying broad, nearly level to gently undulating areas that shallowly to moderately deep cover hard limestone (Taylor et al. 1962). These soils consist of a mix of very dark gray to dark reddish-brown, noncalcareous clays and cherty clay loams to gravelly loams with approximately 10–40 percent of the matrix composed of chert and limestone fragments (Taylor et al. 1962). Lewisville silty clays are described as forming on gradually sloping to nearly level terraces, typically consisting of dark grayish brown silty clays over brown clays. The Crawford clays are characterized



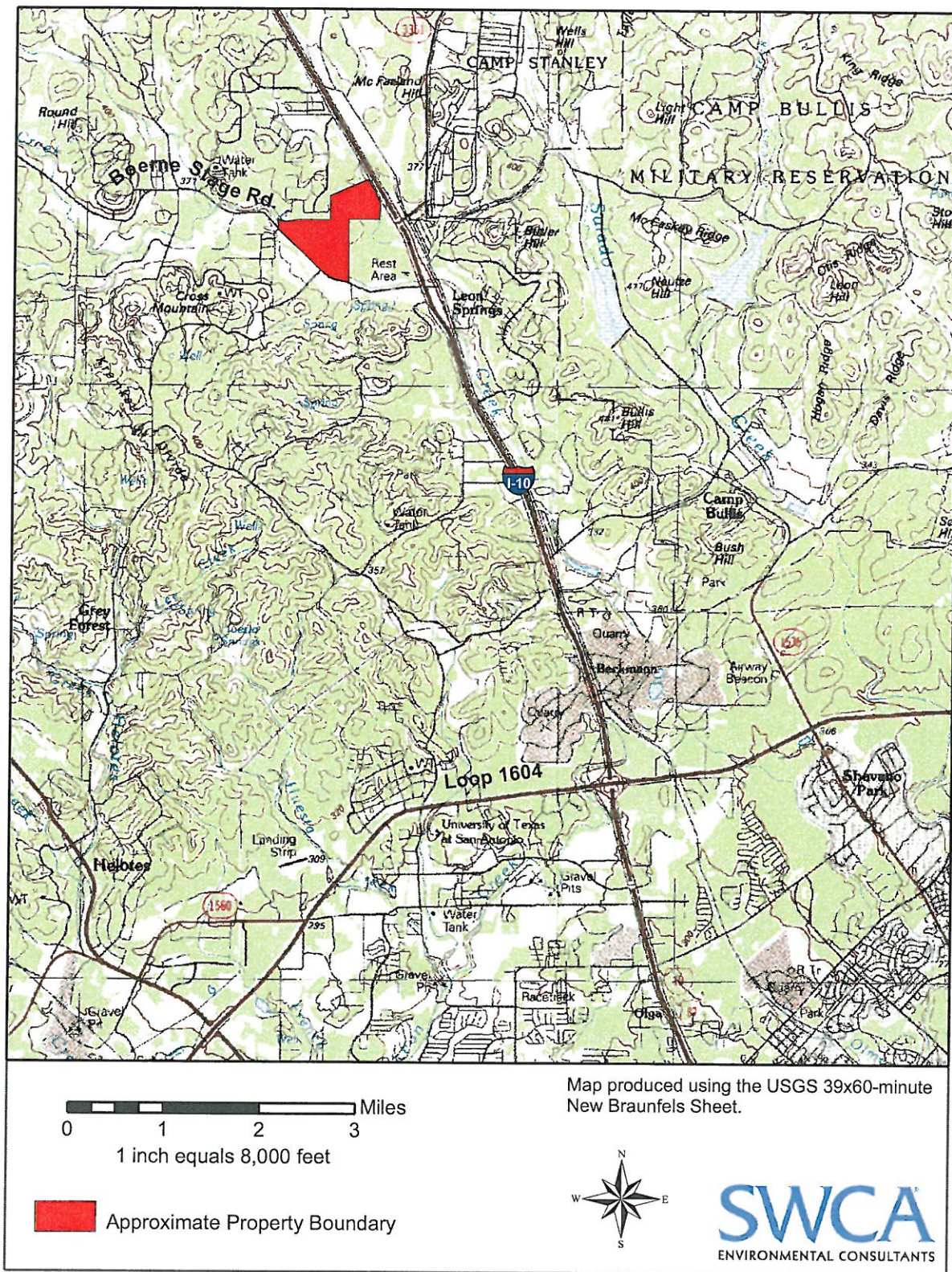


Figure 1. Project location map.



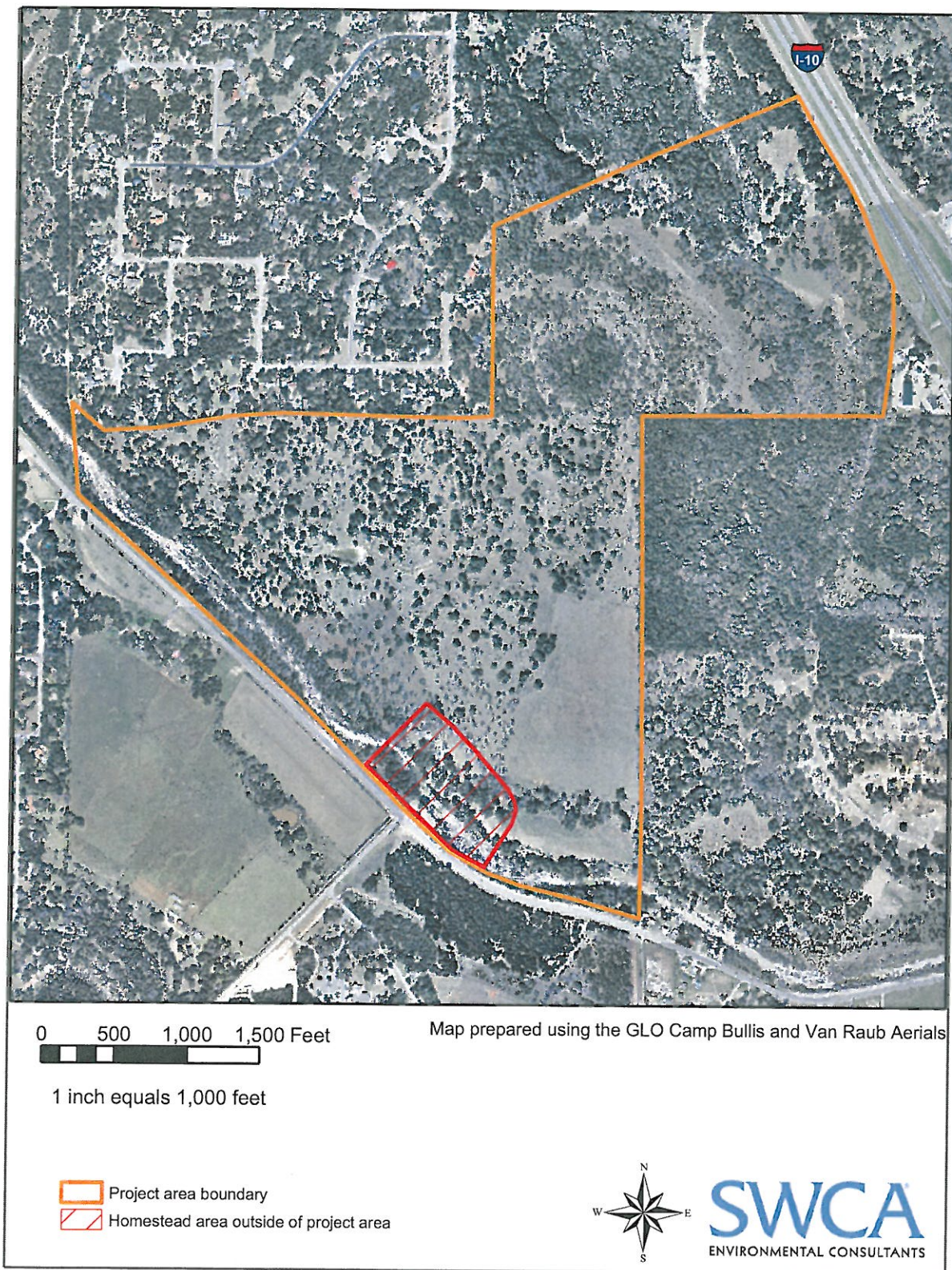


Figure 2. Project area map.



as primarily occupying uplands and occasionally observed in valleys, which consist of dark brown to dark reddish brown noncalcareous clay that shallowly covers limestone (Taylor et al. 1962).

As noted, the project area is situated along the northern terraces of Leon Creek, which flows generally southeast to its confluence with the Medina River and, subsequently, to the San Antonio River. Along the eastern portion of the project area, a minor drainage, Nichols Creek, generally flows from north to south into Leon Creek.

Vegetation consists of pasture grasses for most of the project area and mixed live oak (*Quercus virginiana*) and ashe juniper (*Juniperus ashei*) scattered across the open pasture and along Leon Creek drainage (Taylor et al. 1962; Figure 3).

Topography is rolling, rising gradually to the north. Elevations range from approximately 1150 to 1240 feet above mean sea level. Surface visibility is excellent in the project area, particularly in the higher elevations where the lack of vegetation affords visibility that ranges from 70–90 percent.

## METHODS

### BACKGROUND REVIEW

SWCA performed a background literature review to determine if the project area had been previously surveyed for cultural resources or if any archaeological sites are located within the project area. To conduct this review, an archaeologist reviewed the Van Raub USGS 7.5-minute topographic quadrangle map at the Texas Historical Commission (THC) and the Texas Archeological Research Laboratory (TARL), and also searched the THC's Texas Historic Sites Atlas (an on-line database) and site files at TARL. These sources provided

information on the nature and location of previously conducted archaeological surveys and previously recorded cultural resource sites.

### FIELD METHODS

Based on the recommendations by the San Antonio Historic Preservation Office, only those portions of the project area bordering Leon Creek were investigated with subsurface backhoe trenching and investigation of surface exposures and various natural and artificial features to determine the presence and potential for cultural resources. Since approximately 290 of the 309.6 acres comprised disturbed areas such as stock ponds or plowed, shallow, rocky upland soils with extensive surface exposure, including the soils around Nichols Creek to the north, only about 19 or 20 acres around Leon Creek warranted subsurface investigations. The intensity of subsurface investigations complied with standards issued by the Council of Texas Archeologists, which require 1 backhoe trench per 3 acres unless circumstances dictate otherwise.

Backhoe trenches were placed on terraces of Leon Creek, oriented to parallel the drainage, and excavated to basal bedrock or sandstone, or to a maximum depth of 1.5 m (5 ft) below surface. One terrace was observed following the entire length of the creek, but a second terrace was observed towards the southern end of the project area, about 200 m upslope from the creek. The trenches were placed approximately 100 m apart, following the contour of the creek, and were staggered at different distances from the edge of the downward slope to Leon Creek, and were placed to avoid large trees in the area. Archaeologists monitored the progress of excavation, looking for signs of cultural material in the trench walls or floor. Each trench was profiled on a backhoe trench form, which recorded depth, color and type of soil, inclusions, boundary delineations, and presence or absence of cultural material.



Figure 3. Typical project area setting.



Environmental conditions were documented with notes and photographs, and select representative trenches were also photographed. Each backhoe trench was mapped with a Global Positioning System (GPS) and plotted on topographic maps.

## RESULTS

### *BACKGROUND REVIEW*

The background review revealed no previously recorded sites in or immediately adjacent to the project area. Additionally, no previous investigations have been conducted in the area. The nearest formal investigations, located on the west side of Boerne Stage Road, approximately 100 m south of the survey area, were carried out in 2004 by SWCA for residential development (Carpenter 2004). These investigations identified one site, 41BX1590, which consisted of foundations for a 1940–1950s homestead surrounded by a sparse scatter of domestic debris (Carpenter 2004). All structural components had been removed or dilapidated and this site lacked historical significance; therefore, the site did not warrant further investigations.

The next closest previously recorded site, 41BX962, is a burned rock midden with Archaic and Late Prehistoric components located near a spring roughly 950 m south of the project area (TARL, 41BX962 site files).

Also, site 41BX1165, located about 1.25 km northeast of the project area, and 41BX1157, located about 1.4 km away, was recorded by Prewitt and Associates during a survey of Camp Stanley in 1998 (TARL, 41BX1165 site files). Site 41BX1165 is the remains of a large historic military storage facility, and consists of a series of 48 square concrete foundations of a building that appears on a 1925 Army map of Camp Stanley. In addition to the footings, the only artifacts present are a

light scatter of wire nails. Site 41BX1157 is low density of prehistoric cultural material and one piece of chipped solarized glass on the surface. The cultural material included burned rocks and lithic debris, but no features were located.

About 1.6 km away from the project area to the east, site 41BX562 is a badly disturbed burned rock midden about 15 m in diameter with three biface fragments in a plowed field, one pitted mano, and two large utilized flakes. The site has been badly disturbed by farm activities.

Finally, archaeological investigations located about 2 km southeast of the survey area were carried out in 1997 when the Center for Archaeological Research at The University of Texas at San Antonio surveyed a proposed water line right-of-way along the west side of Leon Creek (Tomka 1998). However, no sites were recorded during the investigation.

Two sites listed on the National Register of Historic Places (NRHP), both historic building complexes associated in part with the old Boerne Stage route, are located east of the project area. The Plehwe Compound, located approximately 700 m east of the east end of the study area limits, comprises three structures used as a stagecoach inn from 1851 to 1874 (NRHP form). The three structures include two small residences and a detached kitchen building, all built of limestone masonry. The structures, constructed circa 1851 as the residences of Prussian immigrants Charles Felix George and Sophie von Plehwe, are important surviving examples of central Texas mid-nineteenth century domestic architecture (NRHP form).

Farther to the east, roughly 1.6 km east of the eastern limits of the survey area, the Aue Stagecoach Inn National Register site comprises a transitional Greek Revival/Victorian

style house built in 1878 and earlier log buildings built from 1855 to 1880 by German immigrant Max Aue and family (NRHP form). The complex has served as a hotel, store, inn, and residence, for stagecoach, railroad (the San Antonio-Arkansas Pass Railroad built in the 1880s had a depot in Leon Springs), and automobile travelers.

## ***FIELD SURVEY***

On October 26, 2004, three SWCA archaeologists conducted an intensive pedestrian survey with subsurface investigations of select areas within the 309.6-acre survey area (Figure 4). The previous background review encountered alluvial terrace deposits in the extreme southeastern portion of the project area and shallow upland soils along the higher elevations and along the northwestern portion of the project area fronting Leon Creek. It was in these alluvial terrace deposits that subsurface investigations and intensive pedestrian survey were conducted.

Disturbances observed within the project area varied in severity and frequency, but overall were minor. A severely disturbed but localized area was a constructed stock pond located in the western portion of the project area situated about 250 m from Leon Creek. Less severe, but more prevalent, was disturbance from vegetation removal and clearing. As previously mentioned, recent (1995) aerial photographs indicate that the eastern side of the lower "wedge," about 26 acres, have been plowed for agriculture, and other areas may have been cleared of native vegetation over the years. In addition, the western portion of the project area exhibited indications of vegetation removal. Also, some disturbance from two residences, two barns, and one concrete cistern was observed on the terrace of Leon Creek within the 19.45-acre homestead location but outside of the project area (Figures 5–9). Finally, disturbances from fence lines, ve-

hicular traffic, cattle grazing, and erosion were also observed.

A total of 13 backhoe trenches were excavated in the Leon Creek terraces to determine the presence and potential for buried deposits (Table 1). Eleven of the trenches were placed on the first terrace above Leon Creek, and two additional trenches were excavated on the second terrace upslope from the creek (BHTs 4 and 5). The trenches generally revealed 30–60 cm of silty loams, clay loams, and gravelly loams over degrading bedrock or dense channel deposits (Figures 10 and 11). A typical profile included a very dark grayish brown (10YR3/2) silty loam humate horizon over dark yellowish brown (10YR3/4) clay loam over strong brown (7.5YR5/6) silt loams with abundant limestone gravels and cobbles that composes degrading bedrock.

One trench (BHT 1) revealed a different stratigraphy that contained approximately 2 m of alluvial loams and clay loams with no substrate of degrading bedrock or dense channel deposits present.

No cultural materials or features were identified in any of the trenches. Additionally, no cultural materials were encountered in any exposures or on the surface of the project area. Of note, no raw chert materials were observed on the surface or within the channel deposits in the project area.

## **SUMMARY AND RECOMMENDATIONS**

SWCA conducted a cultural resource investigation of the proposed 309.6-acre Two Creeks residential development along Boerne Stage Road in north-central Bexar County, Texas. The project area includes undeveloped pasture and second-growth cedar and oak forest along the northern terraces of Leon Creek, and northward to a small hill in the center of the project area, and further to Nichols Creek,



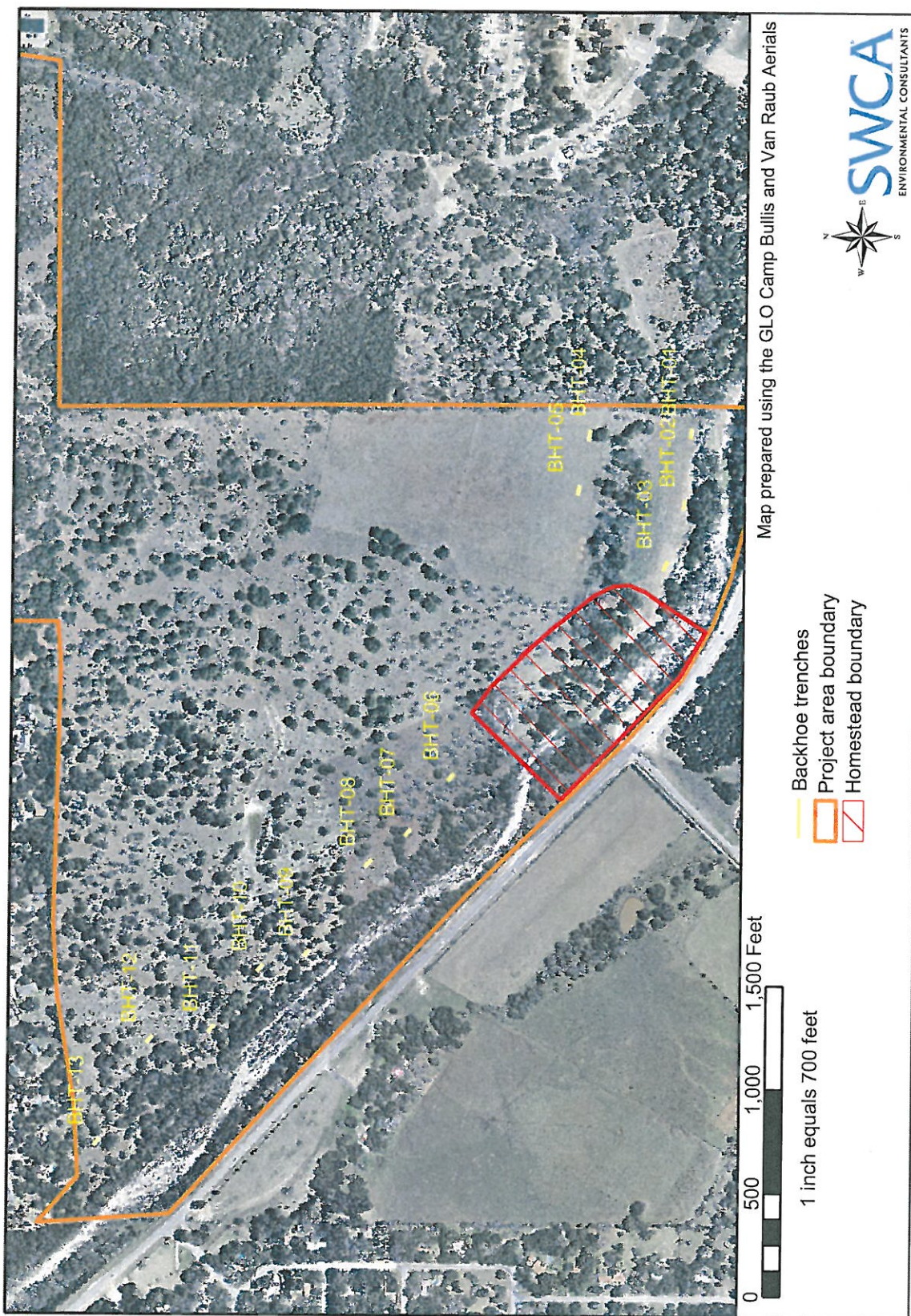


Figure 4. Location of backhoe trenches within the project area.





Figure 5. House located within the 19.45-acre homestead location.



Figure 6. Neighboring house within the 19.45-acre homestead location.





Figure 7. Concrete cistern within the 19.45-acre homestead location.



Figure 8. Large barn within the 19.45-acre homestead location.

**Table 1. Summary of Backhoe Trenches**

BHT	Depth (cmbs)	Munsell	Color	Texture	Comments
1	0-50	10YR2/2	Very dark brown	Loam	Granular and loose. Roots and limestone pebbles. Lower boundary gradual and linear.
	50-125	10YR3/4	Dark yellow brown	Clay loam	Granular and firm. Limestone pebbles. Lower boundary clear and smooth.
	125-175+	10YR3/4	Dark yellow brown	Clay loam	Granular and friable. Many limestone nodules.
2	0-43	10YR2/2	Very dark brown	Silty loam	Granular and friable. Roots and limestone pebbles. Lower boundary abrupt and smooth.
	43-62	10YR3/4	Dark yellow brown	Silty loam	Granular and loose. Many limestone nodules. Lower boundary gradual and smooth.
	62-125	10YR3/4	Dark yellow brown	Silty loam	granular and loose. Increased limestone nodules. Bedrock at bottom.
3	0-25	10YR2/2	Very dark brown	Loam	Granular and loose. Roots and limestone pebbles. Lower boundary gradual and linear.
	25-30	10YR3/4	Dark yellow brown	Clay loam	Granular and firm. Limestone pebbles. Lower boundary clear and smooth.
	30-75	10YR3/4	Dark yellow brown	Clay loam	Granular and friable. Many limestone nodules. Bedrock at bottom.
4	0-22	10YR3/2	Dark gray brown	Clay loam	Granular and friable. Rootlets. Lower boundary abrupt and smooth.
	22-50	10YR3/4	Dark yellow brown	Clay loam	Granular and friable. Limestone boulders. Bedrock at bottom.
5	0-26	10YR3/2	Dark gray brown	Clay loam	Granular and friable. Rootlets. Lower boundary abrupt and smooth.
	26-60	10YR3/4	Dark yellow brown	Clay loam	Granular and friable. Limestone boulders. Bedrock at bottom.
6	0-20	10YR3/2	Dark gray brown	Clay loam	Granular and friable. Rootlets. Lower boundary gradual and smooth.
	20-95	10YR3/2	Dark gray brown	Clay	Granular and firm. Roots. Lower boundary gradual and smooth.
	95-160	10YR4/6	Dark yellow brown	Clay	Granular and firm. Bedrock at bottom.
7	0-15	10YR3/2	Dark gray brown	Silty loam	Granular and friable. Rootlets. Lower boundary gradual and smooth.
	15-50	10YR3/4	Dark yellow brown	Clay loam	Granular and friable. Limestone pebbles. Lower boundary gradual and smooth.
	50-95	10YR5/8	Yellow brown	Clay loam	Granular and friable. More limestone pebbles. Lower boundary abrupt and smooth.
	95-105	10YR5/8	Yellow brown	Clay loam	Granular and friable. Abundant limestone gravels and cobbles. Bedrock at bottom.
8	0-20	10YR3/2	Dark gray brown	Loam	Granular and friable. Rootlets. Lower boundary abrupt and smooth.
	20-47	10YE3/4	Dark yellow brown	Clay loam	Granular and friable. Limestone pebbles. Lower boundary gradual and smooth.
	47-67	7.5YR5/6	Strong brown	Silty loam	Granular and loose. Abundant limestone gravels and cobbles. Bedrock at bottom.
9	0-10	10YR3/2	Dark gray brown	Silty loam	Granular and friable. Rootlets. Bedrock at bottom.
10	0-16	10YR3/2	Dark gray brown	Silty loam w/ clay	Granular and friable. Small limestone gravels. Lower boundary abrupt and smooth.
	16-60	7.5YR5/6	Strong brown	Silty loam	Granular and friable. Abundant limestone cobbles. Bedrock at bottom.



**Table 1.** Summary of Backhoe Trenches

BHT	Depth (cmbs)	Munsell	Color	Texture	Comments
11	0-20	10YR3/2	Dark gray brown	Clay loam	Granular and friable. Rootlets. Lower boundary gradual and linear.
	20-38	10YR4/3	Brown	Silty loam	Granular and friable. Limestone pebbles. Lower boundary gradual and linear.
	38-60	7.5YR5/6	Strong brown	Silty loam	Granular and friable. Many limestone gravels. Lower boundary abrupt and wavy.
	60-90	7.5YR4/6	Strong brown	Limestone	Friable. Degrading bedrock. Bedrock at bottom.
12	0-20	10YR3/2	Dark gray brown	Silty loam	Granular and friable. Small limestone gravels. Bedrock at bottom.
13	0-25	10YR3/2	Dark gray brown	Clay loam	Granular and friable. Rootlets. Lower boundary gradual and linear.
	25-45	10YR4/3	Brown	Silty loam	Granular and friable. Limestone pebbles. Lower boundary gradual and linear.
	45-60	7.5YR5/6	Strong brown	Silty loam	Granular and friable. Many limestone gravels. Lower boundary abrupt and wavy.
	60-96	7.5YR4/6	Strong brown	Limestone	Granular and friable. Abundant limestone gravels. Lower boundary gradual and smooth.
	96-130	7.5YR6/6	Reddish yellow	Limestone	Friable. Degrading bedrock. Bedrock at bottom.



Figure 9. Small barn within the 19.45-acre homestead location.

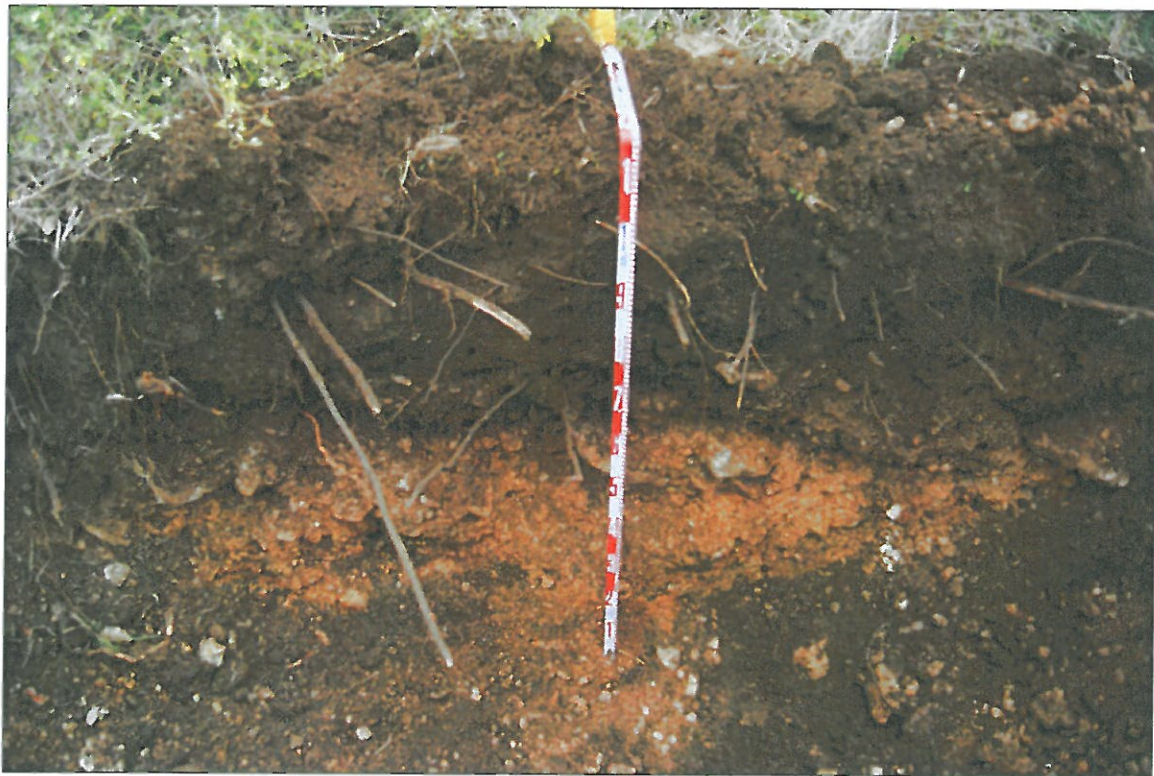


Figure 10. Backhoe Trench 2 profile.





Figure 11. Backhoe Trench 4 profile.

which parallels IH 10. Soils range from deep alluvial loams to shallow, cobbly clays. The archaeological investigations included a background review of the entire 309.6-acre project area and a pedestrian survey with backhoe trenching of select areas.

The background review revealed no previous surveys or recorded sites within or immediately adjacent to the project area. Two NRHP properties, the Plehwe Compound and the Aue Stagecoach Inn National Register site, are located east of the project area, but neither have components within or near the eastern survey area limits.

During the field investigations, the archaeologists surveyed the project area through a pedestrian survey and excavated 13 backhoe trenches in the areas that contained a potential for buried deposits, i.e., the first and second terraces along Leon Creek, roughly 20 acres. The investigations generally encountered clay loams to silty loams over bedrock or channel gravel deposits. Depth of soils ranged from 10 cm to over 2 m in alluvial terraces. Some artificial disturbances (e.g., a stock pond, fences, informal ranch roads, modern dump piles) were also observed throughout the project area.

No cultural material, features, intact cultural deposits, or historic structures were located during the field investigations. Based on the findings, the project will have no adverse affect on significant cultural resources, and, as such, archaeological clearance is recommended.

## REFERENCES

Barnes, V. E.

- 1982 *Geologic Atlas of Texas, San Antonio Sheet*. Bureau of Economic Geology, The University of Texas at Austin.

Carpenter, S.

- 2004 *Cultural Resource Study of the Walnut Pass at Boerne Stage Road Residential Development, Bexar County, Texas*. SWCA Cultural Resources Report No. 04-61. SWCA Environmental Consultants, Austin.

Taylor, F. B., R. B. Hailey, and D. L. Richmond

- 1962 *Bexar County, Texas Soil Survey*. United States Department of Agriculture, Washington D. C.

Tomka, S. A.

- 1998 *An Archaeological Survey along Upper Leon Creek, Bexar County, Texas*. Archaeological Survey Report No. 274. Center for Archaeological Research, The University of Texas at San Antonio.